**MODULE: 5 (Database)**

1. **What do you understand By Database?**

* A Database is a collection of data , so that it can easily accessed and managed.
* The main purpose of the database is to Manage a large amount of information by storing, Access, and Update

the data.

* There are many **databases available**like MySQL, Oracle, MongoDB.

1. **What is Normalization?**

* Normalization is the process of organizing the data in the database. Normalization divides the larger table into smaller and links them using relationships.

1. **What is Difference between DBMS and RDBMS?**

|  |  |  |
| --- | --- | --- |
| **No** | **DBMD** | **RDBMS** |
| 1 | DBMS stores data as file. | RDBMS stores data in tabular form. |
| 2 | Data elements need to access individually. | Multiple data elements can be accessed at the same time. |
| 3 | No relationship between data. | Data is stored in the form of tables which are related to each other. |
| 4 | Normalization is not present. | Normalization is present. |
| 5 | It deals with small quantity of data. | It deals with large amount of data. |
| 6 | Security is less | More security provided. |
| 7 | It supports single user. | It supports multiple users. |
| 8 | Examples: XML | Examples: [MySQL](https://www.geeksforgeeks.org/architecture-of-mysql/), [PostgreSQL](https://www.geeksforgeeks.org/what-is-postgresql-introduction/), [SQL](https://www.geeksforgeeks.org/what-is-sql/) Server, Oracle etc. |

1. **What is MF Cod Rule of RDBMS Systems?**

* The "MF Cod Rule" in RDBMS systems stands for "Master Function Code Data." It essentially means that there should be a clear hierarchy between the master data, its functions, and its coding within the database. This rule ensures proper management of data and maintains control over its access and modification. It helps in preserving data integrity and security.

1. **What do you understand By Data Redundancy?**

* Data redundancy occurs when the same piece of data exists in multiple places, whereas data inconsistency is when the same data exists in different formats in multiple tables.
* **Data redundancy can lead to several issues :-**
* **Wasted storage space :** Storing duplicate data consumes additional storage space, which can be costly, especially in large databases.
* **Reduced flexibility :**Redundancy can reduce the flexibility of the database. For example, if a change needs to be made to a particular piece of data, it may need to be updated in multiple places, which can be time-consuming and error-prone.
* **Data Duplication :** Redundancy can lead to data duplication, where the same data is stored in multiple locations, resulting in wasted storage space and increased maintenance complexity. This can also lead to confusion and errors, as different copies of the data.
* **Increased risk of errors :**When data is redundant, there is a greater risk of errors in the database. For example, if the same data is stored in multiple tables, there is a risk of inconsistencies between the tables.

1. **What is DDL Interpreter?**

* A DDL (Data Definition Language) Interpreter is a part of a database management system that reads and executes DDL commands. Data Definition Language (DDL) is used to create and modify the structure of objects in a database .
* DDL is a set of SQL commands used to create, modify, and delete database structures but not data.

1. **What is DML Compiler in SQL?**

* A DML (Data Manipulation Language) Compiler in SQL is a component of a database management system that translates and executes DML commands. These commands are used to manipulate the data and stored in the database, such as inserting new records, updating existing ones, deleting records.
* There are following Common DML statements include SELECT, INSERT, UPDATE, and DELETE.

1. **What is SQL Key Constraints writing an Example of SQL Key Constraints.**

* In a database table, we can add rules to a column known as **constraints.** These rules control the data that can be stored in a column.
* **UNIQUE Constraint :** The UNIQUE constraint in a column means that the column must have unique value. UNIQUE key can be multiple in a table isPossible.

**Example :-**

CREATE TABLE Colleges (

college\_id INT NOT NULL UNIQUE,

college\_code VARCHAR(20) UNIQUE, college\_name VARCHAR(50) );

* **Primary Key Constraint : The PRIMARY KEY constraint is simply a combination of NOT NULL and UNIQUE constraints. It means that the column value is used to uniquely identify the row. PRIMARY KEY can be only one in a table.**

**Example :-**

CREATE TABLE Colleges (

college\_id INT **PRIMARY KEY,**

college\_code VARCHAR(20) NOT NULL, college\_name VARCHAR(50) );

* **Foreign Key Constraint** : The FOREIGN KEY (REFERENCES in some databases) constraint in a column is used to reference a record that exists in another table.

**Example** :-

CREATE TABLE Collages(

college\_code VARCHAR(20) NOT NULL,

college\_name VARCHAR(50)

college\_id INT **PRIMARY KEY** REFERENCES collage(collage\_id) );

1. **What is save Point? How to create a save Point write a Query?**

**10) What is trigger and how to create a Trigger in SQL?**

**SQL QUERIES**

1. **Create Table Name : Student and Exam**

* CREATE DATABASE class;
* use class;
* CREATE TABLE student(

rollno int PRIMARY KEY AUTO\_INCREMENT,

name varchar(20),

brance varchar(30)

);

* INSERT INTO student(rollno,name,brance) VALUES('1','jay','computer science');
* INSERT INTO student(name,brance) VALUES('suhani','electronic and com'),('kirti','electronic and com');
* **Student table :-**

|  |  |  |
| --- | --- | --- |
| [**rollno**](http://localhost/phpmyadmin/index.php?route=/sql&db=classroom&table=exam&sql_query=SELECT+%2A+FROM+%60exam%60++%0AORDER+BY+%60exam%60.%60rollno%60+ASC&sql_signature=7ee1d5354261d5c35a613a26d635309ad9d1b3d6be5767ba11997d4b6fadb37b&session_max_rows=25&is_browse_distinct=0) | [**name**](http://localhost/phpmyadmin/index.php?route=/sql&db=classroom&table=exam&sql_query=SELECT+%2A+FROM+%60exam%60++%0AORDER+BY+%60exam%60.%60rollno%60+ASC&sql_signature=7ee1d5354261d5c35a613a26d635309ad9d1b3d6be5767ba11997d4b6fadb37b&session_max_rows=25&is_browse_distinct=0) | [**branch**](http://localhost/phpmyadmin/index.php?route=/sql&db=classroom&table=exam&sql_query=SELECT+%2A+FROM+%60exam%60++%0AORDER+BY+%60exam%60.%60rollno%60+ASC&sql_signature=7ee1d5354261d5c35a613a26d635309ad9d1b3d6be5767ba11997d4b6fadb37b&session_max_rows=25&is_browse_distinct=0) |
| 1 | Jay | computer science |
| 2 | Kirti | electronic and com |
| 3 | shuhani | electronic and com |

* CREATE TABLE exam(

rollno int ,

FOREIGN key(rollno) REFERENCES student(rollno) ,s\_code varchar(20),

marks int ,

p\_code varchar(20)

);

* INSERT INTO exam(rollno,s\_code, marks,p\_code) VALUES ('1', 'CS11', '50', 'CS');
* INSERT INTO exam(rollno,s\_code,marks,p\_code) VALUES(1,'CS12',60,'CS'),(2,'EC101',66,'EC'),(2,'EC102',70,'EC'),(3,'EC101',45,'EC'),(3,'EC102',50,'EC');
* **Exam table :-**

|  |  |  |  |
| --- | --- | --- | --- |
| [**rollno**](http://localhost/phpmyadmin/index.php?route=/sql&db=classroom&table=exam&sql_query=SELECT+%2A+FROM+%60exam%60++%0AORDER+BY+%60exam%60.%60rollno%60+ASC&sql_signature=7ee1d5354261d5c35a613a26d635309ad9d1b3d6be5767ba11997d4b6fadb37b&session_max_rows=25&is_browse_distinct=0) | [**s\_code**](http://localhost/phpmyadmin/index.php?route=/sql&db=classroom&table=exam&sql_query=SELECT+%2A+FROM+%60exam%60++%0AORDER+BY+%60exam%60.%60s_code%60+ASC&sql_signature=648d6aca10cb5afc5ba648a0dc3854e5d930b31431a04c8658bd3acb6b556e2f&session_max_rows=25&is_browse_distinct=0) | [**marks**](http://localhost/phpmyadmin/index.php?route=/sql&db=classroom&table=exam&sql_query=SELECT+%2A+FROM+%60exam%60++%0AORDER+BY+%60exam%60.%60marks%60+ASC&sql_signature=ff157f57c742d706f0ef767f34d8a8bad32510535538dd69345d472f6a921080&session_max_rows=25&is_browse_distinct=0) | [**p\_code**](http://localhost/phpmyadmin/index.php?route=/sql&db=classroom&table=exam&sql_query=SELECT+%2A+FROM+%60exam%60++%0AORDER+BY+%60exam%60.%60p_code%60+ASC&sql_signature=c414f8f2ea34a7b017497a610cc1889f32342f02cc8d73b2ccab674844c0a968&session_max_rows=25&is_browse_distinct=0) |
| 1 | CS11 | 50 | CS |
| 1 | CS12 | 60 | CS |
| 2 | EC101 | 66 | EC |
| 2 | EC102 | 70 | EC |
| 3 | EC101 | 45 | EC |
| 3 | EC102 | 50 | EC |

1. **Create table given below: Employee and IncentiveTable**

* CREATE DATABASE company;
* use company;
* CREATE TABLE employee(

employee\_id int PRIMARY KEY AUTO\_INCREMENT,

first\_name varchar(20),

last\_name varchar(20),

salary int,

joining\_date datetime,

department varchar(20)

);

* INSERT INTO employee(`employee\_id`, `first\_name`, `last\_name`, `salary`, `joining\_date`, `department`) VALUES (1, 'John', 'Abraham', '1000000', '2013-01-01 12:00:00', 'Banking'),(2, 'Michael', 'Clarke', '800000', '2013-01-01 12:00:00', 'Insurance'),(3, 'Roy', 'Thomas', '700000', '2013-02-01 12:00:00', 'Banking'),(4, 'Tom', 'Jose', '600000', '2013-02-01 12:00:00', 'Insurance');
* INSERT INTO employee (`employee\_id`, `first\_name`, `last\_name`, `salary`, `joining\_date`, `department`) VALUES (5, 'Jerry', 'Pinto', '650000', '2013-02-01 12:00:00', 'Insurance'),(6, 'philip', 'Mathew', '750000', '2013-01-01 12:00:00', 'Services '),(7, 'TestName1', 'Lname1', '650000', '2013-01-01 12:00:00', 'Services'),(8, 'TestName2', 'Lname2', '600000', '2013-02-01 12:00:00', 'Insurance');
* **employee table :-**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Employee\_id** | **First\_name** | **Last\_name** | **salary** | **Joining\_Date** | **department** |
| 1 | john | abraham | 1000000 | 2013-01-01 12:00:00 | banking |
| 2 | michael | clarke | 800000 | 2013-01-01 12:00:00 | Insurance |
| 3 | roy | thomas | 700000 | 2013-02-01 14:10:00 | Banking |
| 4 | tom | jose | 600000 | 2013-02-01 12:00:00 | Insurance |
| 5 | jerry | pinto | 650000 | 2013-02-01 12:00:00 | Insurance |
| 6 | philip | mathew | 750000 | 2013-01-01 12:00:00 | Services |
| 7 | TestName1 | Lname1 | 650000 | 2013-01-01 12:00:00 | Services |
| 8 | TestName2 | Lname1 | 600000 | 2013-02-01 12:00:00 | Insurance |

* CREATE TABLE incentive(

employee\_ref\_id int,

FOREIGN KEY(employee\_ref\_id) REFERENCES employee(employee\_id),

incentive\_date date,

incentive\_amount int

);

* INSERT INTO incentive(employee\_ref\_id, incentive\_date, incentive\_amount) VALUES ('1', '2013-02-01', '5000'), ('2', '2013-02-01', '3000'),('3','2013-02-01','4000') ,('1','2013-01-01','4500') ,('2','2013-01-01','3500');

|  |  |  |
| --- | --- | --- |
| [**employee\_ref\_id**](http://localhost/phpmyadmin/index.php?route=/sql&db=company&table=incentive&sql_query=SELECT+%2A+FROM+%60incentive%60++%0AORDER+BY+%60incentive%60.%60employee_ref_id%60+ASC&sql_signature=5b6508457c928b0834e654c8596238f0e2326438553d6c1d93a0dd56d90b731d&session_max_rows=25&is_browse_distinct=0) | [**incentive\_date**](http://localhost/phpmyadmin/index.php?route=/sql&db=company&table=incentive&sql_query=SELECT+%2A+FROM+%60incentive%60++%0AORDER+BY+%60incentive%60.%60incentive_date%60+DESC&sql_signature=2e50ad85161943db271bd951ef12817a754a33d642cc187162107548b3953633&session_max_rows=25&is_browse_distinct=0) | [**incentive\_amount**](http://localhost/phpmyadmin/index.php?route=/sql&db=company&table=incentive&sql_query=SELECT+%2A+FROM+%60incentive%60++%0AORDER+BY+%60incentive%60.%60incentive_amount%60+ASC&sql_signature=95ed464ad9d4e4703de5cdee02e5c8515a66bc1b13259247baec3885391d94e0&session_max_rows=25&is_browse_distinct=0) |
| [1](http://localhost/phpmyadmin/index.php?route=/sql&db=company&table=employee&pos=0&sql_signature=6e94fa5517a791bf8db6fbdf6728d78bdbfca4f7093cc3d0fcfc75097b6a3af0&sql_query=SELECT+%2A+FROM+%60company%60.%60employee%60+WHERE+%60employee_id%60+%3D+1) | 2013-02-01 | 5000 |
| [2](http://localhost/phpmyadmin/index.php?route=/sql&db=company&table=employee&pos=0&sql_signature=289d489b315763b4fc1b3a6d436dae607249b475c56361d4cb42319e348ebb82&sql_query=SELECT+%2A+FROM+%60company%60.%60employee%60+WHERE+%60employee_id%60+%3D+2) | 2013-02-01 | 3000 |
| [3](http://localhost/phpmyadmin/index.php?route=/sql&db=company&table=employee&pos=0&sql_signature=73b452b98b5264bbf132d6f10a0cfe05f66cf9976a8e57220dbd4913fab030f2&sql_query=SELECT+%2A+FROM+%60company%60.%60employee%60+WHERE+%60employee_id%60+%3D+3) | 2013-02-01 | 4000 |
| [1](http://localhost/phpmyadmin/index.php?route=/sql&db=company&table=employee&pos=0&sql_signature=6e94fa5517a791bf8db6fbdf6728d78bdbfca4f7093cc3d0fcfc75097b6a3af0&sql_query=SELECT+%2A+FROM+%60company%60.%60employee%60+WHERE+%60employee_id%60+%3D+1) | 2013-01-01 | 4500 |
| [2](http://localhost/phpmyadmin/index.php?route=/sql&db=company&table=employee&pos=0&sql_signature=289d489b315763b4fc1b3a6d436dae607249b475c56361d4cb42319e348ebb82&sql_query=SELECT+%2A+FROM+%60company%60.%60employee%60+WHERE+%60employee_id%60+%3D+2) | 2013-01-01 | 3500 |

* **incentive table :-**

1. **Get First\_Name from employee table using Tom name “Employee Name”.**

* SELECT \* FROM employee WHERE first\_name = "tom";
* **Output :-**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **employee\_id** | **first\_name** | **last\_name** | **salary** | **joining\_date** | **department** |
| 4 | tom | jose | 600000 | 2013-02-01 12:00:00 | Insurance |

1. **Get FIRST\_NAME, Joining Date, and Salary from employee table.**

* SELECT `first\_name`,`joining\_date`,`salary` from employee;
* **Output :-**

|  |  |  |
| --- | --- | --- |
| [**first\_name**](http://localhost/phpmyadmin/index.php?route=/sql&db=company&table=employee&sql_query=SELECT+%60first_name%60%2C%60joining_date%60%2C%60salary%60+from+employee++%0AORDER+BY+%60employee%60.%60first_name%60+ASC&sql_signature=c13bffc94d8e573c1a852092a0ccf32073472f629b76894896409dfdfb778b16&session_max_rows=25&is_browse_distinct=0) | [**joining\_date**](http://localhost/phpmyadmin/index.php?route=/sql&db=company&table=employee&sql_query=SELECT+%60first_name%60%2C%60joining_date%60%2C%60salary%60+from+employee++%0AORDER+BY+%60employee%60.%60joining_date%60+DESC&sql_signature=af995570cf0cf3771262dfe942cb8b92646db4b2636ae0baca5f4b85797b2704&session_max_rows=25&is_browse_distinct=0) | [**salary**](http://localhost/phpmyadmin/index.php?route=/sql&db=company&table=employee&sql_query=SELECT+%60first_name%60%2C%60joining_date%60%2C%60salary%60+from+employee++%0AORDER+BY+%60employee%60.%60salary%60+ASC&sql_signature=cb7996bc120c1350f0cc0f46feac5aea005c2fbb33643e91e81cbc6fee69a3a0&session_max_rows=25&is_browse_distinct=0) |
| John | 2013-01-01 12:00:00 | 1000000 |
| michael | 2013-01-01 12:00:00 | 800000 |
| roy | 2013-02-01 14:10:00 | 700000 |
| tom | 2013-02-01 12:00:00 | 600000 |
| jerry | 2013-02-01 12:00:00 | 650000 |
| philip | 2013-01-01 12:00:00 | 750000 |
| TestName1 | 2013-01-01 12:00:00 | 650000 |
| TestName2 | 2013-02-01 12:00:00 | 600000 |

1. **Get all employee details from the employee table order by First\_Name Ascending and Salary descending?**

* SELECT \* FROM `employee` ORDER BY `first\_name` ASC ,`salary` DESC;
* **Output :-**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Employee\_id** | **First\_name** | **Last\_name** | **salary** | **Joining\_Date** | **department** |
| 5 | jerry | pinto | 650000 | 2013-02-01 12:00:00 | Insurance |
| 1 | John | Abraham | 1000000 | 2013-01-01 14:01:33 | Banking |
| 2 | michael | clarke | 800000 | 2013-01-01 12:00:00 | Insurance |
| 6 | philip | mathew | 750000 | 2013-01-01 12:00:00 | Services |
| 3 | roy | thomas | 700000 | 2013-02-01 14:10:00 | Banking |
| 7 | TestName1 | Lname1 | 650000 | 2013-01-01 12:00:00 | Services |
| 8 | TestName2 | Lname2 | 600000 | 2013-02-01 12:00:00 | Insurance |
| 4 | tom | jose | 600000 | 2013-02-01 12:00:00 | Insurance |

1. **Get employee details from employee table whose first name contains ‘J’.**

* SELECT \* FROM employee WHERE first\_name LIKE 'j%';
* **Output :-**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **employee\_id** | **first\_name** | **last\_name** | **salary** | **joining\_date** | **department** |
| 1 | John | Abraham | 1000000 | 2013-01-01 14:01:33 | Banking |
| 5 | jerry | pinto | 650000 | 2013-02-01 12:00:00 | Insurance |

1. **Get department wise maximum salary from employee table order by.**

* SELECT department , MAX(salary) FROM employee GROUP BY department;
* **Output :-**

|  |  |
| --- | --- |
| [**department**](http://localhost/phpmyadmin/index.php?route=/sql&db=company&table=employee&sql_query=SELECT+department+%2C+MAX%28salary%29+FROM+employee+GROUP+BY+department++%0AORDER+BY+%60employee%60.%60department%60+ASC&sql_signature=0ba1406945ec58a50ae698b6da3bcb78c7490ce7e933ff87e663767404f6c353&session_max_rows=25&is_browse_distinct=0) | [**MAX(salary)**](http://localhost/phpmyadmin/index.php?route=/sql&db=company&table=employee&sql_query=SELECT+department+%2C+MAX%28salary%29+FROM+employee+GROUP+BY+department++%0AORDER+BY+%60MAX%28salary%29%60+ASC&sql_signature=1e84ae8dc4300a6633f97362a9837798ab9395888df179c772edd3664e3c5796&session_max_rows=25&is_browse_distinct=0) |
| Banking | 1000000 |
| Insurance | 800000 |
| Services | 750000 |

1. **salaryascending?**

* SELECT salary FROM employee ORDER BY salary ASC;
* **Output :-**

|  |
| --- |
| **Salary** |
| 600000 |
| 650000 |
| 700000 |
| 750000 |
| 800000 |
| 1000000 |

1. **Select first\_name, incentive amount from employee and incentives table for those employees who have incentives and incentive amount greater than 3000**

* SELECT first\_name, incentive\_amount, incentive\_amount > 3000 as greater\_amount from employee LEFT JOIN incentive ON employee\_id = employee\_ref\_id;
* **Output :-**

|  |  |  |
| --- | --- | --- |
| [**first\_name**](http://localhost/phpmyadmin/index.php?route=/sql&db=company&table=employee&sql_query=SELECT+%60first_name%60%2C%60joining_date%60%2C%60salary%60+from+employee++%0AORDER+BY+%60employee%60.%60first_name%60+ASC&sql_signature=c13bffc94d8e573c1a852092a0ccf32073472f629b76894896409dfdfb778b16&session_max_rows=25&is_browse_distinct=0) | [**incentive\_amount**](http://localhost/phpmyadmin/index.php?route=/sql&db=company&table=employee&sql_query=SELECT+%60first_name%60%2C+incentive_amount%2C+incentive_amount+%3E+3000+as+greater_amount+from+employee+a+LEFT+JOIN+incentive+b+ON+A.employee_id+%3D+b.employee_ref_id++%0AORDER+BY+%60b%60.%60incentive_amount%60+ASC&sql_signature=dec064f219b5becfea92a1f75bd00f970d2094489cf7788ee22b2bb3fb7b9157&session_max_rows=25&is_browse_distinct=0) | [**greater\_amount**](http://localhost/phpmyadmin/index.php?route=/sql&db=company&table=employee&sql_query=SELECT+%60first_name%60%2C+incentive_amount%2C+incentive_amount+%3E+3000+as+greater_amount+from+employee+a+LEFT+JOIN+incentive+b+ON+A.employee_id+%3D+b.employee_ref_id++%0AORDER+BY+%60greater_amount%60+ASC&sql_signature=7794c8dedeb8749535e9081ea0cb5f269deb87ea693db19858443f37009b3345&session_max_rows=25&is_browse_distinct=0) |
| John | 5000 | 1 |
| michael | 3000 | 0 |
| roy | 4000 | 1 |
| John | 4500 | 1 |
| michael | 3500 | 1 |
| tom | NULL | NULL |
| jerry | NULL | NULL |
| philip | NULL | NULL |
| TestName1 | NULL | NULL |
| TestName2 | NULL | NULL |

**10) Create After Insert trigger on Employee table which**

**insert records in viewtable.**

**11) Create table given below: Salesperson and Customer.**

* CREATE DATABASE saless;
* use saless;
* CREATE TABLE salesperson(

sno int PRIMARY KEY,

sname varchar(20),

city varchar(20),

comm float(20)

);

* INSERT INTO salesperson VALUES (1001,’Peel’,’London’,.12);
* INSERT INTO salesperson(sno, sname,city,comm) VALUES (1002,’Serres’,’San jose’,.13);
* INSERT INTO salesperson (sno,sname,city,comm) VALUES (1004,’Motika’,’London’,.11) , (1007,’Rafkin’,’Barcelona’,.15) , (1003,’Axelrod’,’NewYork’,.1);
* **selesperson table :-**

|  |  |  |  |
| --- | --- | --- | --- |
| [**sno**](http://localhost/phpmyadmin/index.php?route=/sql&db=salesshop&table=salesperson&sql_query=SELECT+%60sno%60%2C%60sname%60%2C%60city%60%2C%60comm%60+FROM+%60salesperson%60++%0AORDER+BY+%60salesperson%60.%60sno%60+ASC&sql_signature=831f6ca64f61287b1e98b3f888419de2e5621c8913a73f8b11b7fb5e102aa64e&session_max_rows=25&is_browse_distinct=0) | [**sname**](http://localhost/phpmyadmin/index.php?route=/sql&db=salesshop&table=salesperson&sql_query=SELECT+%60sno%60%2C%60sname%60%2C%60city%60%2C%60comm%60+FROM+%60salesperson%60++%0AORDER+BY+%60salesperson%60.%60sname%60+ASC&sql_signature=3e6e29704a93d7f403aa5b33f457ec6dfa26a7e5a1aae5a038d90ff19201d686&session_max_rows=25&is_browse_distinct=0) | [**city**](http://localhost/phpmyadmin/index.php?route=/sql&db=salesshop&table=salesperson&sql_query=SELECT+%60sno%60%2C%60sname%60%2C%60city%60%2C%60comm%60+FROM+%60salesperson%60++%0AORDER+BY+%60salesperson%60.%60city%60+ASC&sql_signature=bb68d88b77f45f8b51bc01251ef87cd4c269e4b0486e55bd992a0e9e6ecab550&session_max_rows=25&is_browse_distinct=0) | [**comm**](http://localhost/phpmyadmin/index.php?route=/sql&db=salesshop&table=salesperson&sql_query=SELECT+%60sno%60%2C%60sname%60%2C%60city%60%2C%60comm%60+FROM+%60salesperson%60++%0AORDER+BY+%60salesperson%60.%60comm%60+ASC&sql_signature=d52fdbd982f0977b7a20accbc669bba013c46e26ec555ad14ccf4956f9f0ee05&session_max_rows=25&is_browse_distinct=0) |
| 1001 | Peel | London | 0.12 |
| 1002 | Serres | San jose | 0.13 |
| 1003 | Axelrod | New York | 0.1 |
| 1004 | Motika | London | 0.11 |
| 1007 | Rafkin | Barcelona | 0.15 |

* CREATE TABLE customer(

cnm int PRIMARY KEY ,

cname varchar(20),

city varchar(20),

rating varchar(20),

sno int,

FOREIGN KEY(sno) REFERENCES salesperson(sno)

);

* INSERT INTO customer VALUES (201,'Hoffman','London',100,1001);
* INSERT INTO customer (cnm,cname,city,rating,sno) VALUES (202,'Giovanne','Roe',200,1003),(203,'Liu','San jose',300,1002) , (204,'Grass','Barcelona',100,1002);
* INSERT INTO customer (cnm,cname,city,rating,sno) VALUES(206,'Clemens','London',300,1007),(207,'Pereira','Roe',100,1004);
* **customer table :-**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| [**cnm**](http://localhost/phpmyadmin/index.php?route=/sql&db=salesshop&table=customer&sql_query=SELECT+%2A+FROM+%60customer%60++%0AORDER+BY+%60customer%60.%60cnm%60+ASC&sql_signature=2f309915f77d2a06c1f15e70b09388f383adc3e54c88106bfdb43f1e7ac1ed75&session_max_rows=25&is_browse_distinct=0) | [**cname**](http://localhost/phpmyadmin/index.php?route=/sql&db=salesshop&table=customer&sql_query=SELECT+%2A+FROM+%60customer%60++%0AORDER+BY+%60customer%60.%60cname%60+ASC&sql_signature=c1ef6893a89f072c1ad5b38b4cf37512737d26c2b0f18f0dd1051fb08101d3ee&session_max_rows=25&is_browse_distinct=0) | [**city**](http://localhost/phpmyadmin/index.php?route=/sql&db=salesshop&table=customer&sql_query=SELECT+%2A+FROM+%60customer%60++%0AORDER+BY+%60customer%60.%60city%60+ASC&sql_signature=bf4a0877e64e7e6001469ec17daf602d85a4a0f0e8d2698410c03396483567df&session_max_rows=25&is_browse_distinct=0) | [**rating**](http://localhost/phpmyadmin/index.php?route=/sql&db=salesshop&table=customer&sql_query=SELECT+%2A+FROM+%60customer%60++%0AORDER+BY+%60customer%60.%60rating%60+ASC&sql_signature=c7da8620dbc05352b08634175e6bd64d579de53c0dc878d5de203d37dc1416be&session_max_rows=25&is_browse_distinct=0) | [**sno**](http://localhost/phpmyadmin/index.php?route=/sql&db=salesshop&table=customer&sql_query=SELECT+%2A+FROM+%60customer%60++%0AORDER+BY+%60customer%60.%60sno%60+ASC&sql_signature=a5f4830dcd4010b175542210cf50f507da2ccc00c344a1b37620969cbf975525&session_max_rows=25&is_browse_distinct=0) |
| 201 | Hoffman | London | 100 | 1001 |
| 202 | Giovanne | Roe | 200 | 1003 |
| 203 | Liu | San jose | 300 | 1002 |
| 204 | Grass | Barcelona | 100 | 1002 |
| 206 | Clemens | London | 300 | 1007 |
| 207 | Pereira | Roe | 100 | 1004 |

**12) Retrieve the below data from above table.**

* Select \* from customer;
* **Output :-**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| [**cnm**](http://localhost/phpmyadmin/index.php?route=/sql&db=salesshop&table=customer&sql_query=SELECT+%2A+FROM+%60customer%60++%0AORDER+BY+%60customer%60.%60cnm%60+ASC&sql_signature=2f309915f77d2a06c1f15e70b09388f383adc3e54c88106bfdb43f1e7ac1ed75&session_max_rows=25&is_browse_distinct=0) | [**cname**](http://localhost/phpmyadmin/index.php?route=/sql&db=salesshop&table=customer&sql_query=SELECT+%2A+FROM+%60customer%60++%0AORDER+BY+%60customer%60.%60cname%60+ASC&sql_signature=c1ef6893a89f072c1ad5b38b4cf37512737d26c2b0f18f0dd1051fb08101d3ee&session_max_rows=25&is_browse_distinct=0) | [**city**](http://localhost/phpmyadmin/index.php?route=/sql&db=salesshop&table=customer&sql_query=SELECT+%2A+FROM+%60customer%60++%0AORDER+BY+%60customer%60.%60city%60+ASC&sql_signature=bf4a0877e64e7e6001469ec17daf602d85a4a0f0e8d2698410c03396483567df&session_max_rows=25&is_browse_distinct=0) | [**rating**](http://localhost/phpmyadmin/index.php?route=/sql&db=salesshop&table=customer&sql_query=SELECT+%2A+FROM+%60customer%60++%0AORDER+BY+%60customer%60.%60rating%60+ASC&sql_signature=c7da8620dbc05352b08634175e6bd64d579de53c0dc878d5de203d37dc1416be&session_max_rows=25&is_browse_distinct=0) | [**sno**](http://localhost/phpmyadmin/index.php?route=/sql&db=salesshop&table=customer&sql_query=SELECT+%2A+FROM+%60customer%60++%0AORDER+BY+%60customer%60.%60sno%60+ASC&sql_signature=a5f4830dcd4010b175542210cf50f507da2ccc00c344a1b37620969cbf975525&session_max_rows=25&is_browse_distinct=0) |
| 201 | Hoffman | London | 100 | 1001 |
| 202 | Giovanne | Roe | 200 | 1003 |
| 203 | Liu | San jose | 300 | 1002 |
| 204 | Grass | Barcelona | 100 | 1002 |
| 206 | Clemens | London | 300 | 1007 |
| 207 | Pereira | Roe | 100 | 1004 |

* Select \* from salesperson;
* **Output :-**

|  |  |  |  |
| --- | --- | --- | --- |
| [**sno**](http://localhost/phpmyadmin/index.php?route=/sql&db=salesshop&table=salesperson&sql_query=SELECT+%60sno%60%2C%60sname%60%2C%60city%60%2C%60comm%60+FROM+%60salesperson%60++%0AORDER+BY+%60salesperson%60.%60sno%60+ASC&sql_signature=831f6ca64f61287b1e98b3f888419de2e5621c8913a73f8b11b7fb5e102aa64e&session_max_rows=25&is_browse_distinct=0) | [**sname**](http://localhost/phpmyadmin/index.php?route=/sql&db=salesshop&table=salesperson&sql_query=SELECT+%60sno%60%2C%60sname%60%2C%60city%60%2C%60comm%60+FROM+%60salesperson%60++%0AORDER+BY+%60salesperson%60.%60sname%60+ASC&sql_signature=3e6e29704a93d7f403aa5b33f457ec6dfa26a7e5a1aae5a038d90ff19201d686&session_max_rows=25&is_browse_distinct=0) | [**city**](http://localhost/phpmyadmin/index.php?route=/sql&db=salesshop&table=salesperson&sql_query=SELECT+%60sno%60%2C%60sname%60%2C%60city%60%2C%60comm%60+FROM+%60salesperson%60++%0AORDER+BY+%60salesperson%60.%60city%60+ASC&sql_signature=bb68d88b77f45f8b51bc01251ef87cd4c269e4b0486e55bd992a0e9e6ecab550&session_max_rows=25&is_browse_distinct=0) | [**comm**](http://localhost/phpmyadmin/index.php?route=/sql&db=salesshop&table=salesperson&sql_query=SELECT+%60sno%60%2C%60sname%60%2C%60city%60%2C%60comm%60+FROM+%60salesperson%60++%0AORDER+BY+%60salesperson%60.%60comm%60+ASC&sql_signature=d52fdbd982f0977b7a20accbc669bba013c46e26ec555ad14ccf4956f9f0ee05&session_max_rows=25&is_browse_distinct=0) |
| 1001 | Peel | London | 0.12 |
| 1002 | Serres | San jose | 0.13 |
| 1003 | Axelrod | New York | 0.1 |
| 1004 | Motika | London | 0.11 |
| 1007 | Rafkin | Barcelona | 0.15 |

**13) Names and cities of all salespeople in London with**

**commission above 0.12.**

* SELECT \* FROM salesperson WHERE city = London AND comm > .12;
* **Output :-**

|  |  |  |  |
| --- | --- | --- | --- |
| [**sno**](http://localhost/phpmyadmin/index.php?route=/sql&db=salesshop&table=salesperson&sql_query=SELECT+%60sno%60%2C%60sname%60%2C%60city%60%2C%60comm%60+FROM+%60salesperson%60++%0AORDER+BY+%60salesperson%60.%60sno%60+ASC&sql_signature=831f6ca64f61287b1e98b3f888419de2e5621c8913a73f8b11b7fb5e102aa64e&session_max_rows=25&is_browse_distinct=0) | [**sname**](http://localhost/phpmyadmin/index.php?route=/sql&db=salesshop&table=salesperson&sql_query=SELECT+%60sno%60%2C%60sname%60%2C%60city%60%2C%60comm%60+FROM+%60salesperson%60++%0AORDER+BY+%60salesperson%60.%60sname%60+ASC&sql_signature=3e6e29704a93d7f403aa5b33f457ec6dfa26a7e5a1aae5a038d90ff19201d686&session_max_rows=25&is_browse_distinct=0) | [**city**](http://localhost/phpmyadmin/index.php?route=/sql&db=salesshop&table=salesperson&sql_query=SELECT+%60sno%60%2C%60sname%60%2C%60city%60%2C%60comm%60+FROM+%60salesperson%60++%0AORDER+BY+%60salesperson%60.%60city%60+ASC&sql_signature=bb68d88b77f45f8b51bc01251ef87cd4c269e4b0486e55bd992a0e9e6ecab550&session_max_rows=25&is_browse_distinct=0) | [**comm**](http://localhost/phpmyadmin/index.php?route=/sql&db=salesshop&table=salesperson&sql_query=SELECT+%60sno%60%2C%60sname%60%2C%60city%60%2C%60comm%60+FROM+%60salesperson%60++%0AORDER+BY+%60salesperson%60.%60comm%60+ASC&sql_signature=d52fdbd982f0977b7a20accbc669bba013c46e26ec555ad14ccf4956f9f0ee05&session_max_rows=25&is_browse_distinct=0) |

**14) All salespeople either in Barcelona or in London.**

* SELECT \* FROM salesperson WHERE `city` = 'London' OR city ='Barcelona';
* **Output :-**

|  |  |  |  |
| --- | --- | --- | --- |
| [**sno**](http://localhost/phpmyadmin/index.php?route=/sql&db=salesshop&table=salesperson&sql_query=SELECT+%60sno%60%2C%60sname%60%2C%60city%60%2C%60comm%60+FROM+%60salesperson%60++%0AORDER+BY+%60salesperson%60.%60sno%60+ASC&sql_signature=831f6ca64f61287b1e98b3f888419de2e5621c8913a73f8b11b7fb5e102aa64e&session_max_rows=25&is_browse_distinct=0) | [**sname**](http://localhost/phpmyadmin/index.php?route=/sql&db=salesshop&table=salesperson&sql_query=SELECT+%60sno%60%2C%60sname%60%2C%60city%60%2C%60comm%60+FROM+%60salesperson%60++%0AORDER+BY+%60salesperson%60.%60sname%60+ASC&sql_signature=3e6e29704a93d7f403aa5b33f457ec6dfa26a7e5a1aae5a038d90ff19201d686&session_max_rows=25&is_browse_distinct=0) | [**city**](http://localhost/phpmyadmin/index.php?route=/sql&db=salesshop&table=salesperson&sql_query=SELECT+%60sno%60%2C%60sname%60%2C%60city%60%2C%60comm%60+FROM+%60salesperson%60++%0AORDER+BY+%60salesperson%60.%60city%60+ASC&sql_signature=bb68d88b77f45f8b51bc01251ef87cd4c269e4b0486e55bd992a0e9e6ecab550&session_max_rows=25&is_browse_distinct=0) | [**comm**](http://localhost/phpmyadmin/index.php?route=/sql&db=salesshop&table=salesperson&sql_query=SELECT+%60sno%60%2C%60sname%60%2C%60city%60%2C%60comm%60+FROM+%60salesperson%60++%0AORDER+BY+%60salesperson%60.%60comm%60+ASC&sql_signature=d52fdbd982f0977b7a20accbc669bba013c46e26ec555ad14ccf4956f9f0ee05&session_max_rows=25&is_browse_distinct=0) |
| 1001 | Peel | London | 0.12 |
| 1004 | Motika | London | 0.11 |
| 1007 | Rafkin | Barcelona | 0.15 |

**15)** All salespeople with commission between 0.10 and 0.12.

* SELECT \* FROM salesperson WHERE comm > .10 AND comm < .12;
* **Output :-**

|  |  |  |  |
| --- | --- | --- | --- |
| [**sno**](http://localhost/phpmyadmin/index.php?route=/sql&db=salesshop&table=salesperson&sql_query=SELECT+%60sno%60%2C%60sname%60%2C%60city%60%2C%60comm%60+FROM+%60salesperson%60++%0AORDER+BY+%60salesperson%60.%60sno%60+ASC&sql_signature=831f6ca64f61287b1e98b3f888419de2e5621c8913a73f8b11b7fb5e102aa64e&session_max_rows=25&is_browse_distinct=0) | [**sname**](http://localhost/phpmyadmin/index.php?route=/sql&db=salesshop&table=salesperson&sql_query=SELECT+%60sno%60%2C%60sname%60%2C%60city%60%2C%60comm%60+FROM+%60salesperson%60++%0AORDER+BY+%60salesperson%60.%60sname%60+ASC&sql_signature=3e6e29704a93d7f403aa5b33f457ec6dfa26a7e5a1aae5a038d90ff19201d686&session_max_rows=25&is_browse_distinct=0) | [**city**](http://localhost/phpmyadmin/index.php?route=/sql&db=salesshop&table=salesperson&sql_query=SELECT+%60sno%60%2C%60sname%60%2C%60city%60%2C%60comm%60+FROM+%60salesperson%60++%0AORDER+BY+%60salesperson%60.%60city%60+ASC&sql_signature=bb68d88b77f45f8b51bc01251ef87cd4c269e4b0486e55bd992a0e9e6ecab550&session_max_rows=25&is_browse_distinct=0) | [**comm**](http://localhost/phpmyadmin/index.php?route=/sql&db=salesshop&table=salesperson&sql_query=SELECT+%60sno%60%2C%60sname%60%2C%60city%60%2C%60comm%60+FROM+%60salesperson%60++%0AORDER+BY+%60salesperson%60.%60comm%60+ASC&sql_signature=d52fdbd982f0977b7a20accbc669bba013c46e26ec555ad14ccf4956f9f0ee05&session_max_rows=25&is_browse_distinct=0) |
| 1001 | Peel | London | 0.12 |
| 1003 | Axelrod | New York | 0.1 |
| 1004 | Motika | Motika | 0.11 |

**16)** All customers excluding those with rating <= 100 unless

they are located in Rome.

* SELECT \* FROM customer WHERE rating <= 100 ;
* **Output :-**

|  |  |  |  |
| --- | --- | --- | --- |
| [**cnm**](http://localhost/phpmyadmin/index.php?route=/sql&db=salesshop&table=customer&sql_query=SELECT+%2A+FROM+%60customer%60++%0AORDER+BY+%60customer%60.%60cnm%60+ASC&sql_signature=2f309915f77d2a06c1f15e70b09388f383adc3e54c88106bfdb43f1e7ac1ed75&session_max_rows=25&is_browse_distinct=0) | [**cname**](http://localhost/phpmyadmin/index.php?route=/sql&db=salesshop&table=customer&sql_query=SELECT+%2A+FROM+%60customer%60++%0AORDER+BY+%60customer%60.%60cname%60+ASC&sql_signature=c1ef6893a89f072c1ad5b38b4cf37512737d26c2b0f18f0dd1051fb08101d3ee&session_max_rows=25&is_browse_distinct=0) | [**city**](http://localhost/phpmyadmin/index.php?route=/sql&db=salesshop&table=customer&sql_query=SELECT+%2A+FROM+%60customer%60++%0AORDER+BY+%60customer%60.%60city%60+ASC&sql_signature=bf4a0877e64e7e6001469ec17daf602d85a4a0f0e8d2698410c03396483567df&session_max_rows=25&is_browse_distinct=0) | [**rating**](http://localhost/phpmyadmin/index.php?route=/sql&db=salesshop&table=customer&sql_query=SELECT+%2A+FROM+%60customer%60++%0AORDER+BY+%60customer%60.%60rating%60+ASC&sql_signature=c7da8620dbc05352b08634175e6bd64d579de53c0dc878d5de203d37dc1416be&session_max_rows=25&is_browse_distinct=0) |
| 201 | Hoffman | London | 100 |
| 204 | Grass | Barcelona | 100 |
| 207 | Pereira | Roe | 100 |

**17) Write a SQL statement that displays all the information**

**about all salespeople.**

* ***INSERT RECORDS IN salesperson TABLE:-***
* INSERT INTO salesperson(sno, sname, city, comm) VALUES (5001 , 'James Hoog' , 'New York' , 0.15) , (5002 ,' Nail Knite', 'Paris' , 0.13), (5005 , 'Pit Alex' , 'London' , 0.11), (5006 , 'Mc Lyon' , 'Paris' , 0.14) ,(5007 , 'Paul Adam' , 'Rome' , 0.13), (5003 ,'Lauson Hen' ,'San Jose',0.12);
* select \* from salesperson;
* **Output :-**

|  |  |  |  |
| --- | --- | --- | --- |
| [**sno**](http://localhost/phpmyadmin/index.php?route=/sql&db=salesshop&table=salesperson&sql_query=SELECT+%2A+FROM+%60salesperson%60++%0AORDER+BY+%60salesperson%60.%60sno%60+ASC&sql_signature=0ddc0dfd59c28f1fe3fe502f2df5d19e826680b344b7de132c5a5d97ebd9df01&session_max_rows=25&is_browse_distinct=0) | [**sname**](http://localhost/phpmyadmin/index.php?route=/sql&db=salesshop&table=salesperson&sql_query=SELECT+%2A+FROM+%60salesperson%60++%0AORDER+BY+%60salesperson%60.%60sname%60+ASC&sql_signature=14126ec9880c713e87c042c2c1d7cdbfd5395a85c0dbcfd59dd4d2694f1eafd9&session_max_rows=25&is_browse_distinct=0) | [**city**](http://localhost/phpmyadmin/index.php?route=/sql&db=salesshop&table=salesperson&sql_query=SELECT+%2A+FROM+%60salesperson%60++%0AORDER+BY+%60salesperson%60.%60city%60+ASC&sql_signature=589f85e3a4847510eed244539616b19e97647ca83d9f7207d094fb27319ec946&session_max_rows=25&is_browse_distinct=0) | [**comm**](http://localhost/phpmyadmin/index.php?route=/sql&db=salesshop&table=salesperson&sql_query=SELECT+%2A+FROM+%60salesperson%60++%0AORDER+BY+%60salesperson%60.%60comm%60+ASC&sql_signature=9ed3239d93a5172603b5770b8577a9935c4e959a60d87a151330efcca219f2a8&session_max_rows=25&is_browse_distinct=0) |
| 1001 | Peel | London | 0.12 |
| 1002 | Serres | San jose | 0.13 |
| 1003 | Axelrod | New York | 0.1 |
| 1004 | Motika | London | 0.11 |
| 1007 | Rafkin | Barcelona | 0.15 |
| 5001 | James Hoog | New York | 0.15 |
| 5002 | Nail Knite | Paris | 0.13 |
| 5003 | Lauson Hen | San Jose | 0.12 |
| 5005 | Pit Alex | London | 0.11 |
| 5006 | Mc Lyon | Paris | 0.14 |
| 5007 | Paul Adam | Rome | 0.13 |

**18) From the following table, write a SQL query to find**

**orders that are delivered by a salesperson with ID. 5001. Return ord\_no, ord\_date, purch\_amt.**

* SELECT ord\_no, ord\_date, purch\_amt FROM orders WHERE salesman\_id = 5001;
* **Output :-**

|  |  |  |
| --- | --- | --- |
| [**ord\_no**](http://localhost/phpmyadmin/index.php?route=/sql&db=salesshop&table=orders&sql_query=SELECT+ord_no%2C+ord_date%2C+purch_amt+FROM+orders+WHERE+%60salesman_id%60+%3D+5001++%0AORDER+BY+%60orders%60.%60ord_no%60+ASC&sql_signature=2468f40c2844b6d46026e03826033d3c19be24b039558652358efbda9b1d481f&session_max_rows=25&is_browse_distinct=0) | [**ord\_date**](http://localhost/phpmyadmin/index.php?route=/sql&db=salesshop&table=orders&sql_query=SELECT+ord_no%2C+ord_date%2C+purch_amt+FROM+orders+WHERE+%60salesman_id%60+%3D+5001++%0AORDER+BY+%60orders%60.%60ord_date%60+DESC&sql_signature=bcce610efdb70f5d940ffeaa5f440242400b47b8a066e195ad6d350d796fb683&session_max_rows=25&is_browse_distinct=0) | [**purch\_amt**](http://localhost/phpmyadmin/index.php?route=/sql&db=salesshop&table=orders&sql_query=SELECT+ord_no%2C+ord_date%2C+purch_amt+FROM+orders+WHERE+%60salesman_id%60+%3D+5001++%0AORDER+BY+%60orders%60.%60purch_amt%60+ASC&sql_signature=7b3206c06eedb03a962fe012812b72ce17180de25c4292c729824a68c45dd386&session_max_rows=25&is_browse_distinct=0) |
| 70002 | 2012-10-05 | 65.26 |
| 70005 | 2012-07-27 | 2400.6 |
| 70008 | 2012-09-10 | 5760 |
| 70013 | 2012-04-25 | 3045.6 |

**19) From the following table, write a SQL query to select a**

**range of products whose price is in the range Rs.200 to**

**Rs.600. Begin and end values are included. Return**

**pro\_id, pro\_name, pro\_price, and pro\_com.**

* SELECT \* FROM item\_mast WHERE pro\_price BETWEEN 200 AND 600;
* **Output :-**

|  |  |  |  |
| --- | --- | --- | --- |
| [**pro\_id**](http://localhost/phpmyadmin/index.php?route=/sql&db=salesshop&table=item_mast&sql_query=SELECT+%2A+FROM+%60item_mast%60+WHERE+%60pro_price%60+BETWEEN+200+AND+600++%0AORDER+BY+%60item_mast%60.%60pro_id%60+ASC&sql_signature=fc67efbe311324f9135e1a12278f188cb1051f60b42e93150443c271cb1e7c51&session_max_rows=25&is_browse_distinct=0) | [**pro\_name**](http://localhost/phpmyadmin/index.php?route=/sql&db=salesshop&table=item_mast&sql_query=SELECT+%2A+FROM+%60item_mast%60+WHERE+%60pro_price%60+BETWEEN+200+AND+600++%0AORDER+BY+%60item_mast%60.%60pro_name%60+ASC&sql_signature=a1ec2cad74dab50359f8777754286cc20a91f13f1ac5084ea1300563a36f18e4&session_max_rows=25&is_browse_distinct=0) | [**pro\_price**](http://localhost/phpmyadmin/index.php?route=/sql&db=salesshop&table=item_mast&sql_query=SELECT+%2A+FROM+%60item_mast%60+WHERE+%60pro_price%60+BETWEEN+200+AND+600++%0AORDER+BY+%60item_mast%60.%60pro_price%60+ASC&sql_signature=2eb892609f9df6f9963b49d37b73882da428e7023818a26854b34910d9873358&session_max_rows=25&is_browse_distinct=0) | [**pro\_com**](http://localhost/phpmyadmin/index.php?route=/sql&db=salesshop&table=item_mast&sql_query=SELECT+%2A+FROM+%60item_mast%60+WHERE+%60pro_price%60+BETWEEN+200+AND+600++%0AORDER+BY+%60item_mast%60.%60pro_com%60+ASC&sql_signature=f3f6aec73fe17a21736c590daebb50e56119596307e08ee322fb32c357181fbc&session_max_rows=25&is_browse_distinct=0) |
| 102 | Key Board | 450 | 16 |
| 103 | ZIP drive | 250 | 14 |
| 104 | Speaker | 550 | 16 |
| 109 | Refill cartridge | 350 | 13 |
| 110 | Mouse | 250 | 12 |

**20) From the following table, write a SQL query to calculate**

**the average price for a manufacturer code of 16. Return**

**avg.**

* SELECT AVG(pro\_price) AS avg\_price FROM item\_mast WHERE

pro\_com = 16;

**21) From the following table, write a SQL query to display**

**the pro\_name as 'Item Name' and pro\_price as 'Price**

**in Rs.'**

* SELECT pro\_name AS ‘item\_name’ , pro\_price AS ‘price in rs’ from item\_mast;

**22) From the following table, write a SQL query to find the**

**items whose prices are higher than or equal to $250.**

**Order the result by product price in descending, then**

**product name in ascending. Return pro\_name and**

**pro\_price.**

* SELECT pro\_name, pro\_price FROM item\_mast WHERE pro\_price >= 250 ORDER BY pro\_price DESC;

**24) From the following table, write a SQL query to calculate**

**average price of the items for each company. Return**

**average price and company code.**

* SELECT pro\_com, AVG(pro\_price) AS avg\_price FROM

item\_mast GROUP BY pro\_com;